

ABSTRACT

An arc tube for a discharge bulb is provided for use in a vehicular lighting system. The arc tube includes a closed glass bulb that is pinch-sealed at opposite ends. Inner ends of a first electrode and a second electrode extend into the closed glass bulbs from the ends of the closed glass bulb. The atmosphere inside the closed glass bulb includes a starting rare gas, a primary light-emitting metal halide, and optionally, a buffer metal halide. The distance between the inner ends of the electrodes is between about 0.3 and 1.8, and the inner diameter of the closed glass bulb at a middle portion is between about 1.5 mm and 2.7 mm. Accordingly, a stable discharge is produced using between 15W and 30W of power.